



# ● DOWNTOWN NASHUA

One Way Streets Conversion

Presentation 2 of 4

October 5, 2011

# One-Way Streets Conversion



# ONE WAY STREETS: WHEN AND WHY?

- Conversion to one-way streets in downtown areas during 1950's, 1960's and 1970's
- Intent was to relieve traffic congestion in Downtown without a large capital expense
- Nashua converted many side streets to a one-way pattern in 1972

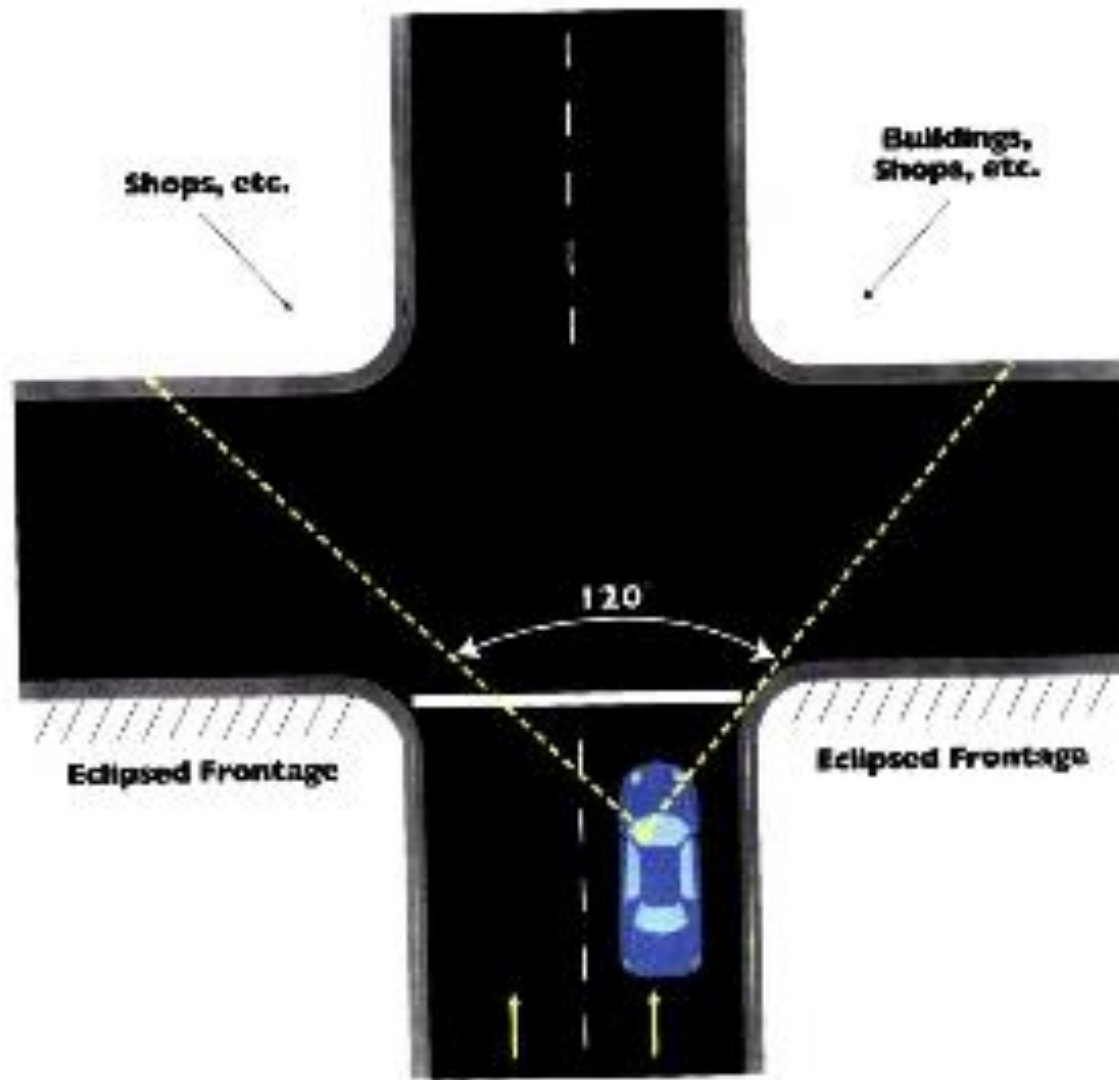
# BENEFITS OF ONE-WAY STREETS

- Increased traffic capacity (3-5%)
- Increased traffic speed (lower commuting times)
- Reduced pollution
- Easier for pedestrians to navigate
- Fewer conflict points (cars and people)
- Potential for more on street parking

# DISADVANTAGES OF ONE-WAY STREETS

- Traffic patterns are confusion, especially for visitors
- Can generate higher vehicle speeds, making pedestrian crossings difficult
- Higher speeds increase crash severity
- Reduced retail visibility

# RETAIL VISIBILITY ISSUES





# TWO-WAY STREETS: WHEN AND WHY?

- In 1990's, Downtown advocates blame one-way streets for the decay of Downtown retail
- Led by Berkeley, CA, Milwaukee, WI, 100's of communities seek to convert back to two-way patterns.



# BENEFITS OF TWO-WAY TRAFFIC

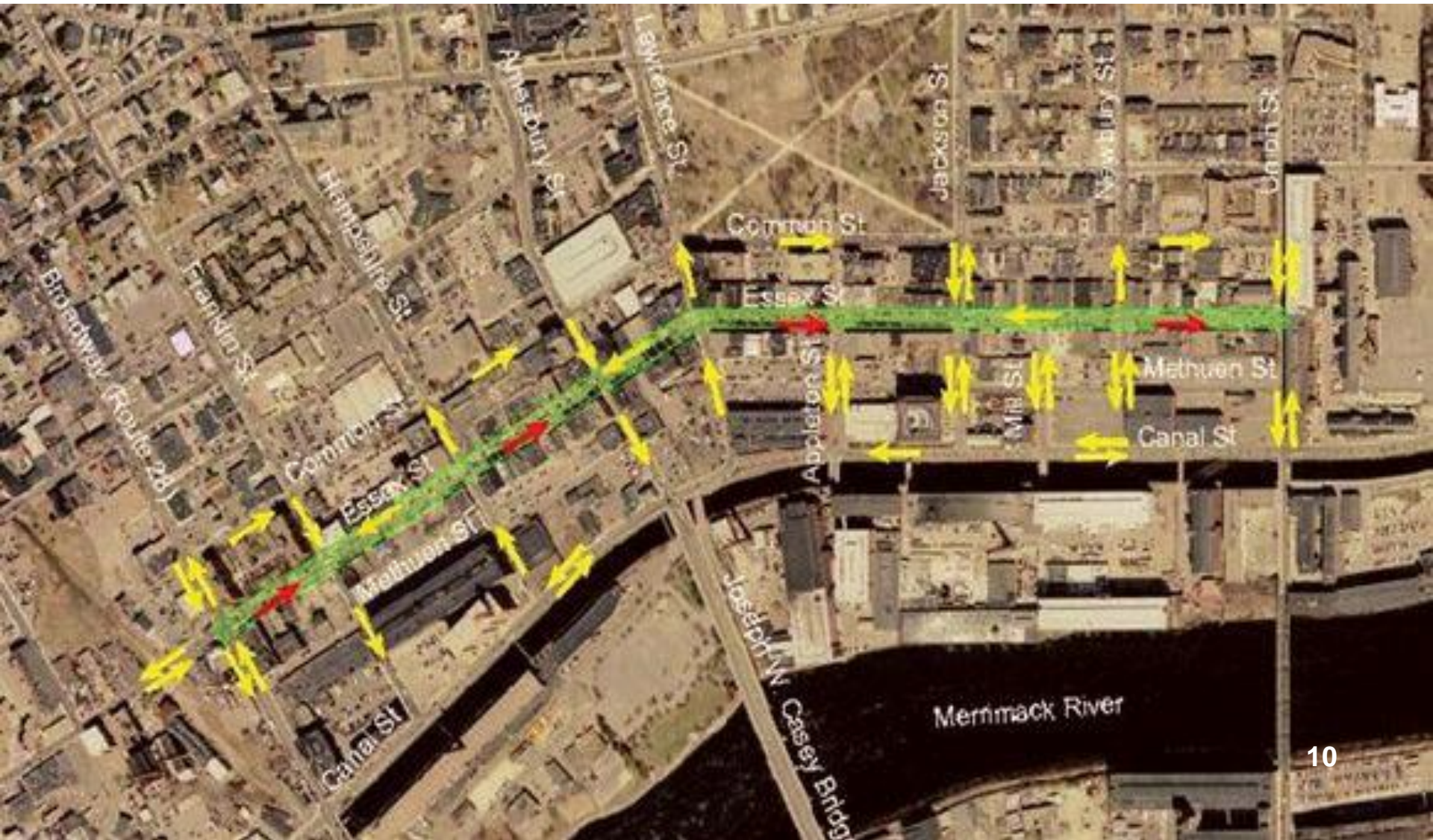
- More direct routes for drivers—more intuitive
- More traffic “friction” slows down cars
- Slower traffic creates perception of pedestrian safety
- Maximum exposure for retailers



# DISADVANTAGES OF TWO-WAY TRAFFIC

- Increased congestions at intersections
- Narrow two-way streets may be difficult for large vehicles, busses and fire apparatus
- Left turn lanes may eliminate some parking
- Increased conflict points

# ESSEX STREET, LAWRENCE MA

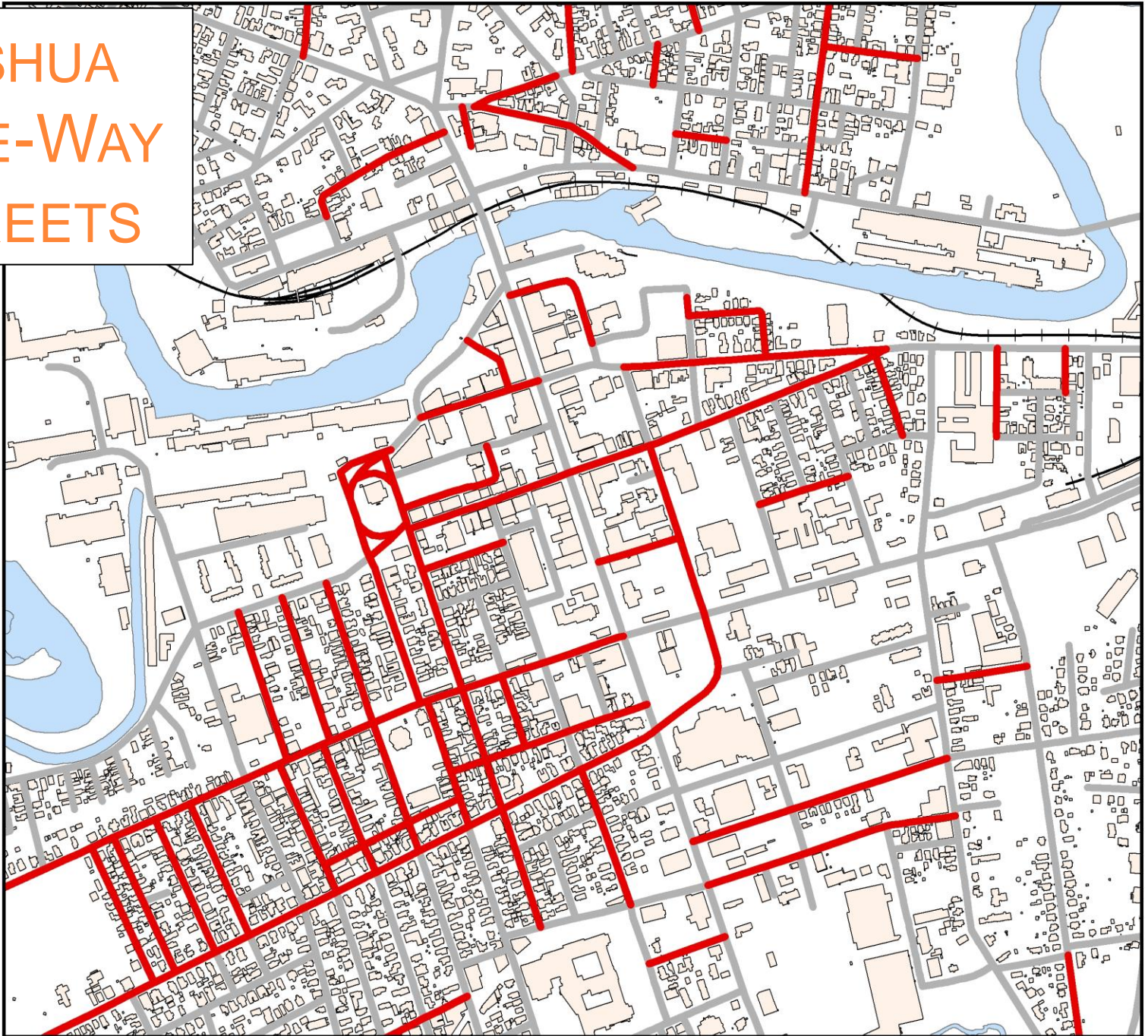


# 2003 DOWNTOWN NASHUA MASTER PLAN

- Three Tiered approach to converting one way streets back to two-way pattern
  - Tier 1: Unpaired streets greater than 30 ft
  - Tier 2: Paired streets with sufficient width and capacity (Chestnut/Ash, Factory-Temple/Pearl St)
  - Tier 3: Paired arterials require further study (W. Hollis St/Kinsley

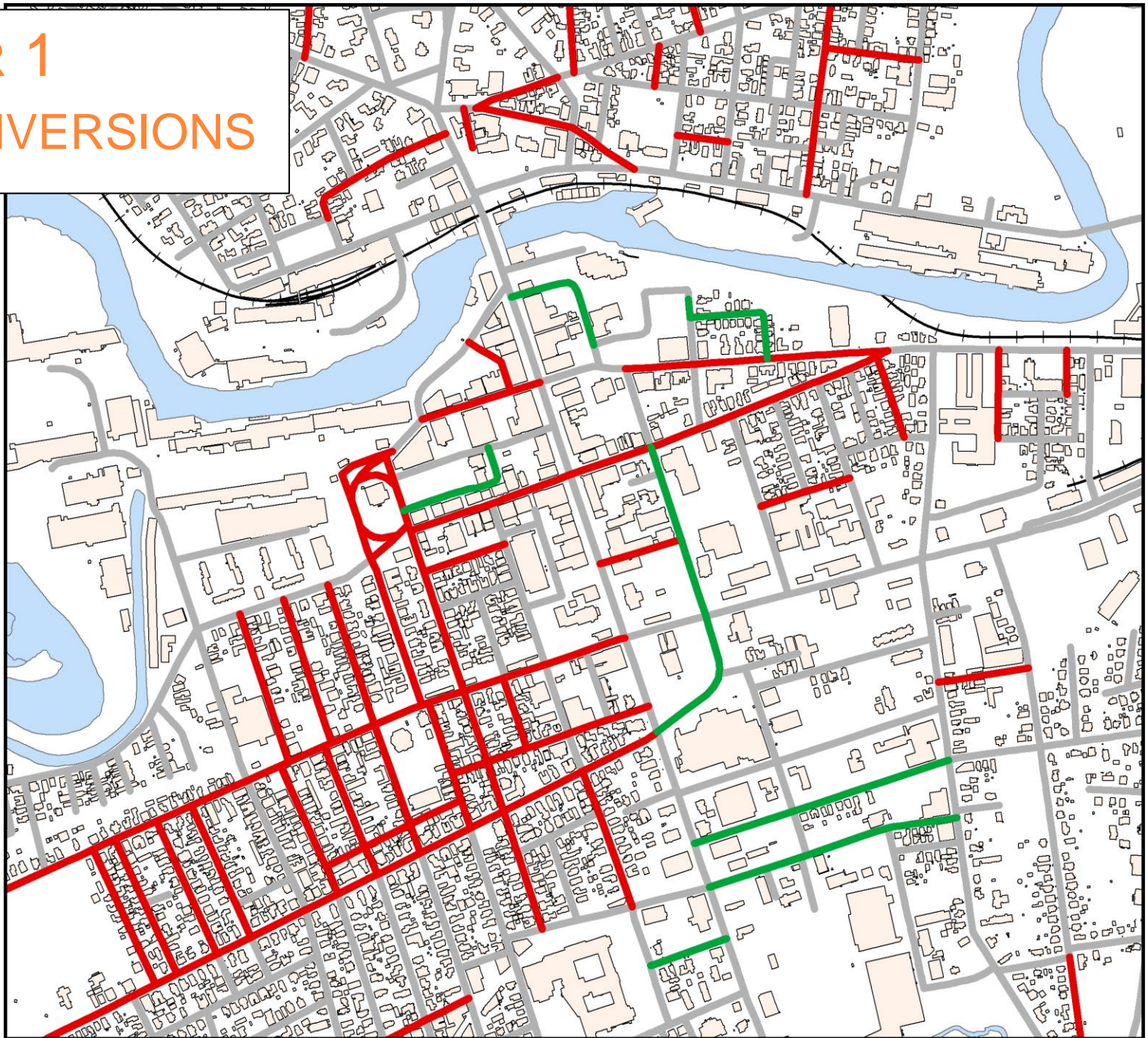


# NASHUA ONE-WAY STREETS





# TIER 1 CONVERSIONS



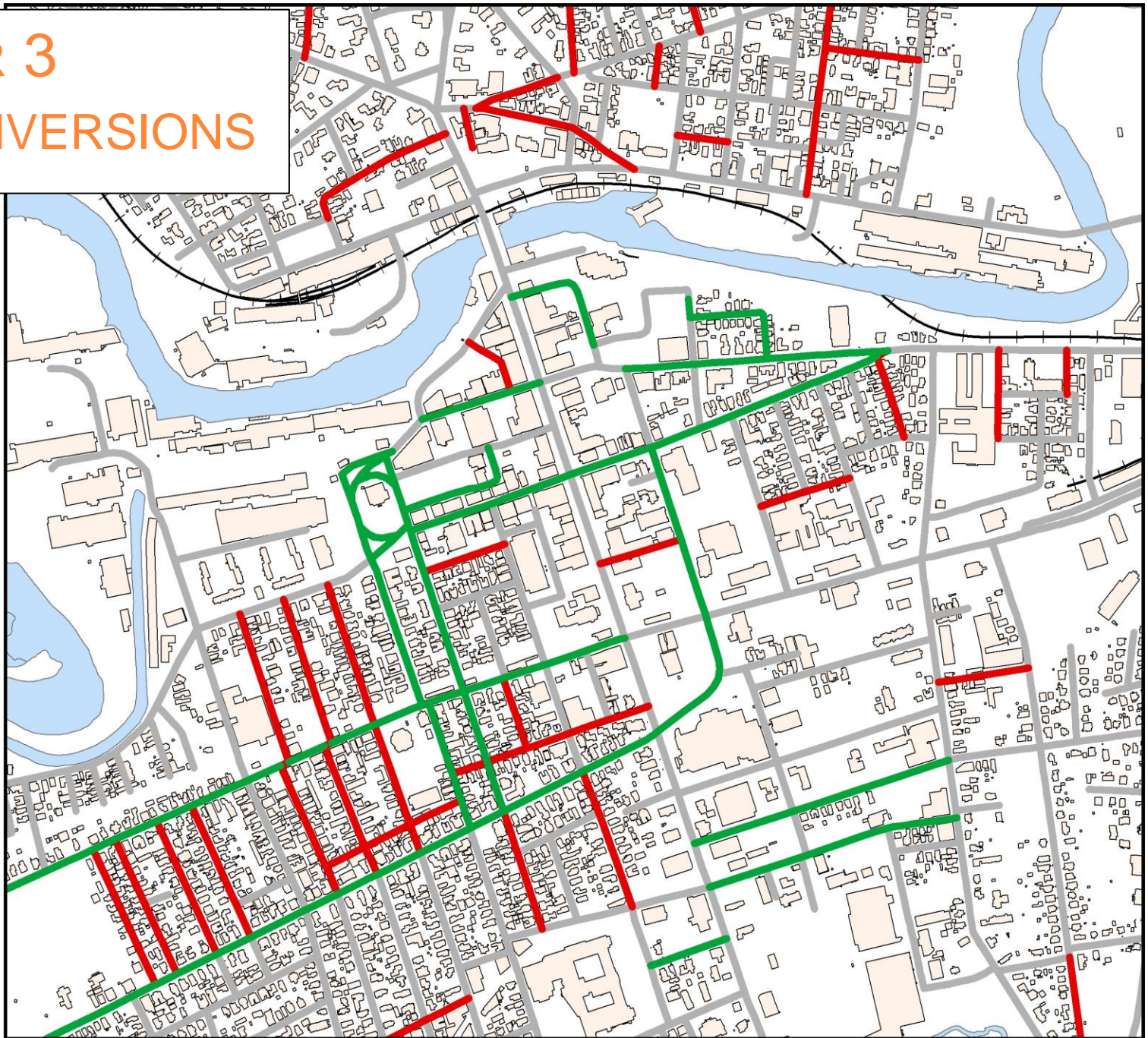


## 2. VERSIONS

The map displays a city grid with various streets and buildings. A river flows through the upper-left and middle sections. A black line, possibly a railway or a major road, runs horizontally across the middle. Red lines highlight specific street segments, while green lines highlight others, likely representing different versions or phases of a street network.

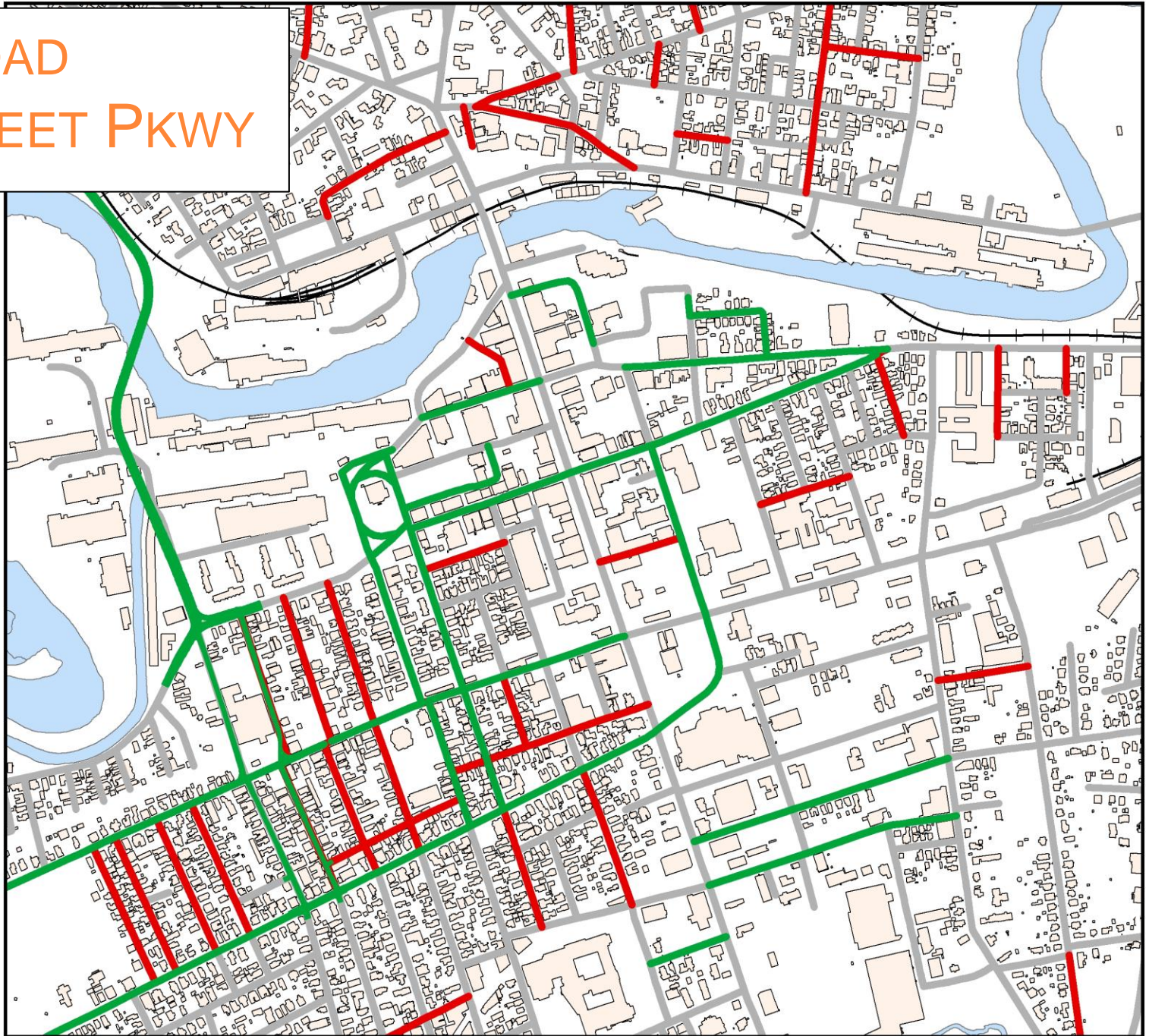


# TIER 3 CONVERSIONS



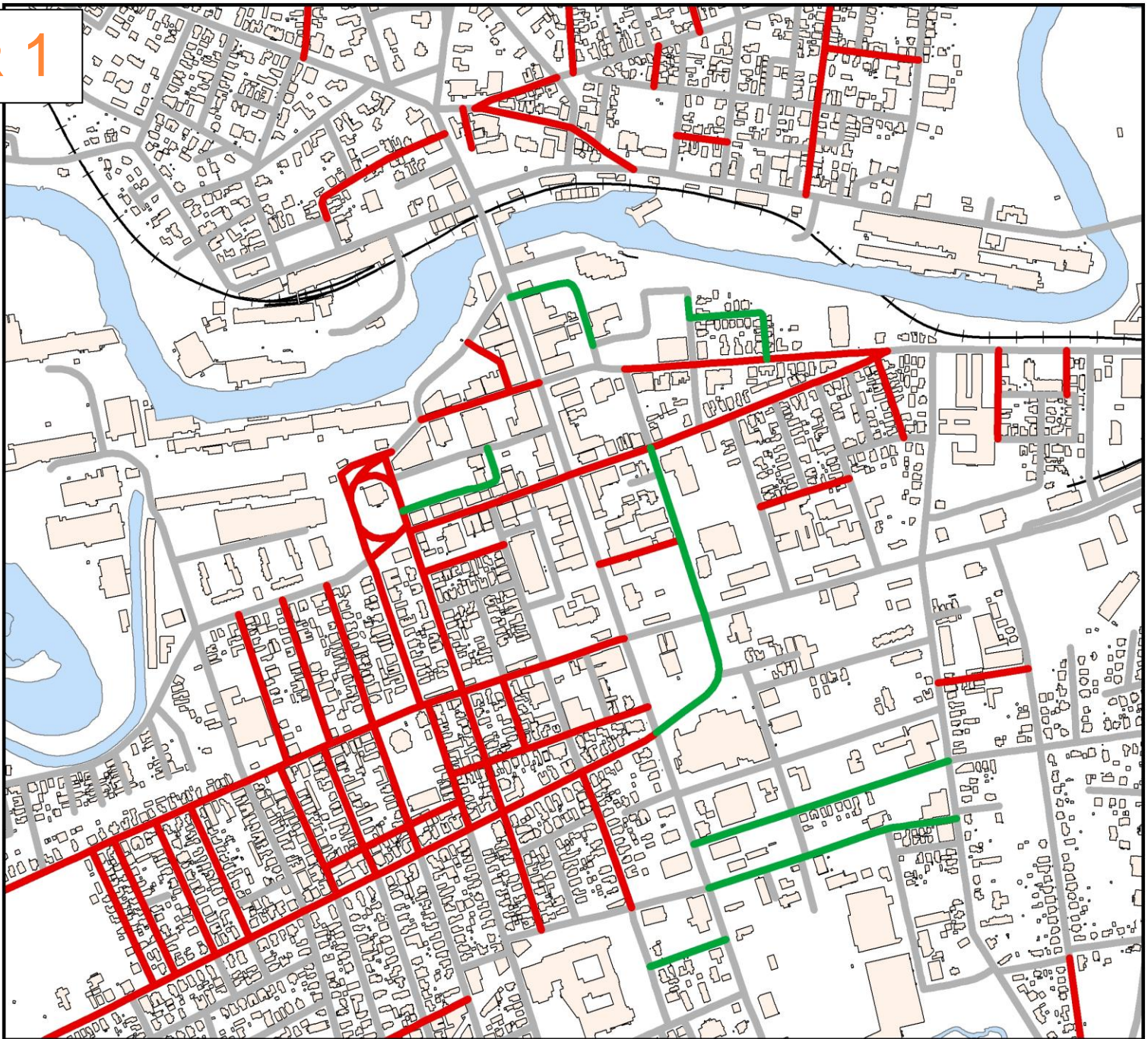


# BROAD STREET PKWY



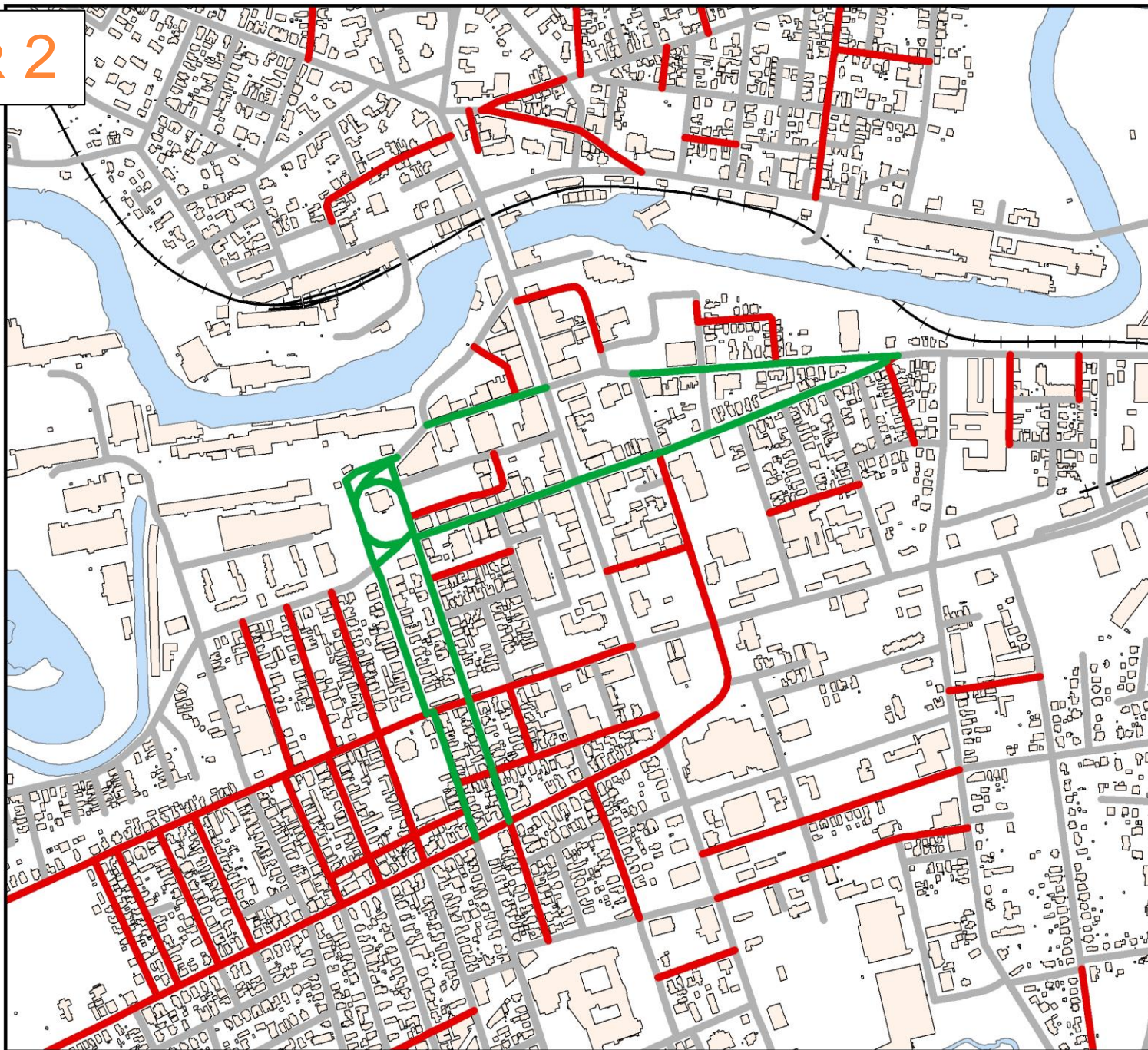


TIER 1



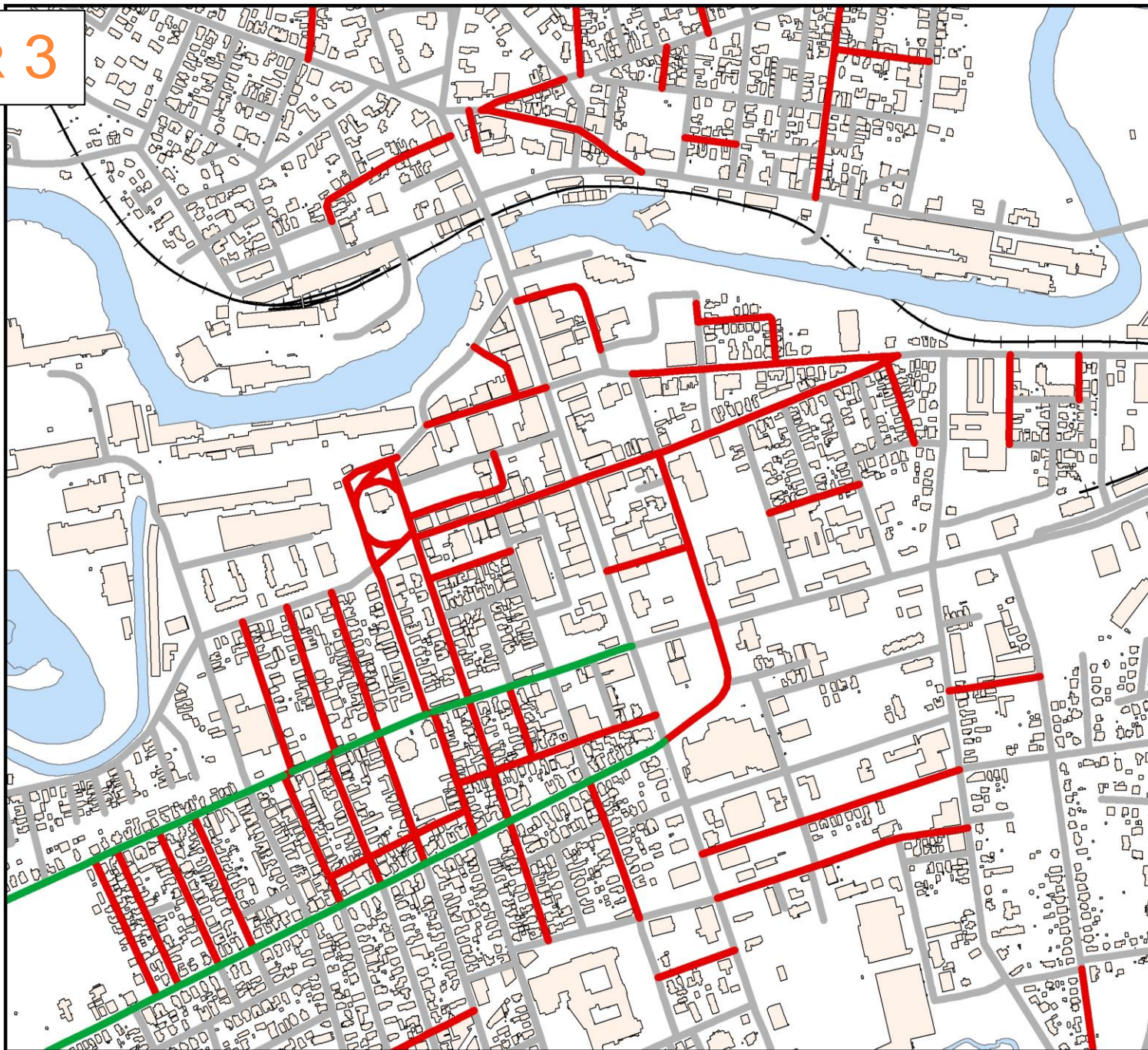


# TIER 2



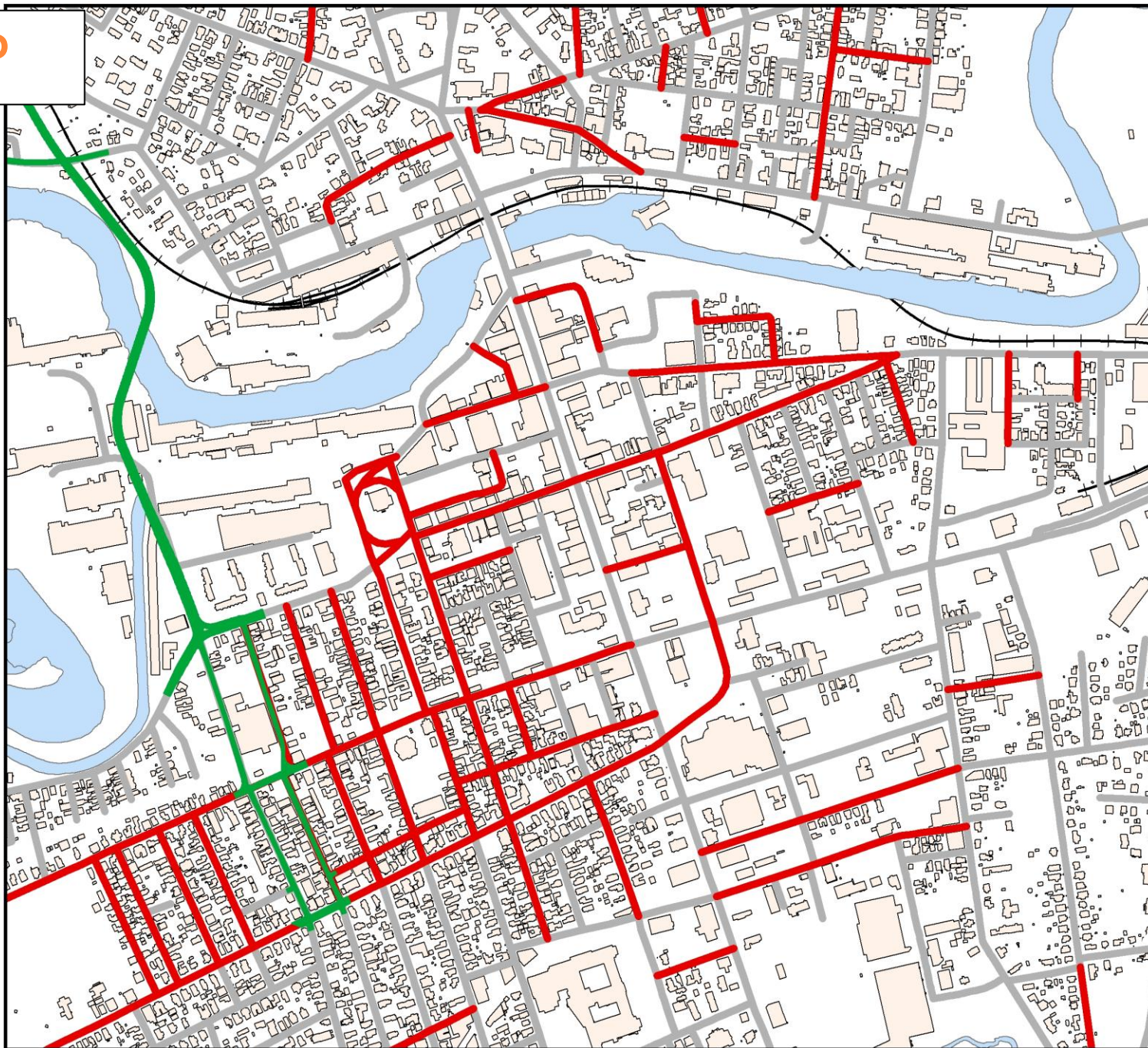


# TIER 3





BSP





# **Downtown Nashua**

## **One Way Streets Conversion (Presentation 2 of 4) Companion Transcript**

In many American Downtowns, we began converting the traditional street pattern to include one-way streets. This was a response to the congestion problems prevalent in Downtowns as well as the desire to improve access to Downtown. Downtowns were fighting the new competition from suburban shopping malls which were well connected to highways.

Nashua made a partial switch in 1972. At the time, it was reasoned that this would make downtown Nashua more competitive vis a vis the new shopping plazas in the South End and off of Amherst Street.

### **One Way Achieved their Goal**

These engineered solutions did accomplish their goal. One-way streets make it easier to travel THROUGH the Downtown easier and more quickly. Some argued that this alignment also made it safer for pedestrians who only needed to look one way for oncoming traffic.

### **More Harm than Good**

One way streets have probably not helped Downtown Nashua become a stronger shopping destination, however. The one way streets make it more difficult for visitors to navigate to their destination. It also reduces visibility of retail storefronts. Finally, these patterns actually encourage speed, which can lead to more severe crashes, when they do occur.



Many downtowns across of the country are now undoing what was done decades ago. It is recognized that traffic might be a good thing for retail and that by slowing down traffic; pedestrians feel safer and feel more in control of the street environment. However, not all streets can be useful as a two-way road, especially if the roadway is too narrow.

## **Lawrence, MA**

Essex Street in Lawrence, MA is a good example of the positive effect on business development that a one-way conversion can have. Retailers notices a 30% increase in retail sales six months after Essex Street was returned to a two-way alignment.

## **2003 Downtown Master Plan**

Nashua's current Downtown Plan recommended that many of Nashua's one way streets be converted to two way travel. It advocated a gradual, phased approach to converting these streets.

- Tier 1: Unpaired streets greater than 30 ft (so called orphan streets)
- Tier 2: Paired streets with sufficient width and capacity (Chestnut/Ash, Factory-Temple/Pearl St)
- Tier 3: Paired arterials require further study (W. Hollis St/Kinsley)

The construction of the Broad Street Parkway provides the opportunity to relook at converting these streets. The BSP will create a second crossing over the Nashua River, when traveling North/South. This will redirect some traffic that currently crosses the Main Street Bridge. This may provide the opportunity to convert some streets without the fear of causing additional traffic congestion.

Also, the BSP encourages this route to be an effective back door roadway to the Downtown. Straightening out the complicated patterns found on the west side of Downtown would justify further study. The opportunity to connect to Downtown via a two way West Pearl Street seems to make logical sense, for instance.